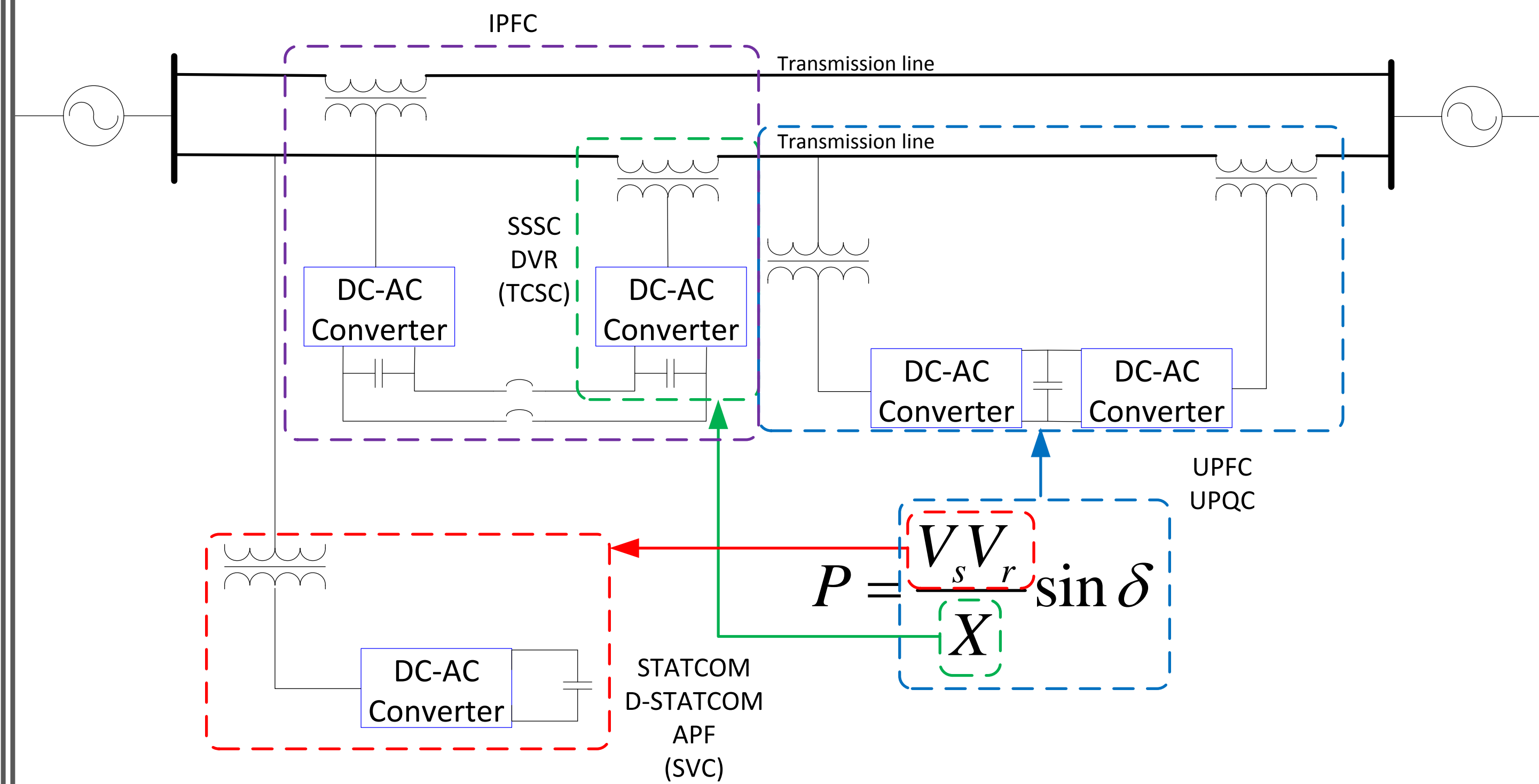
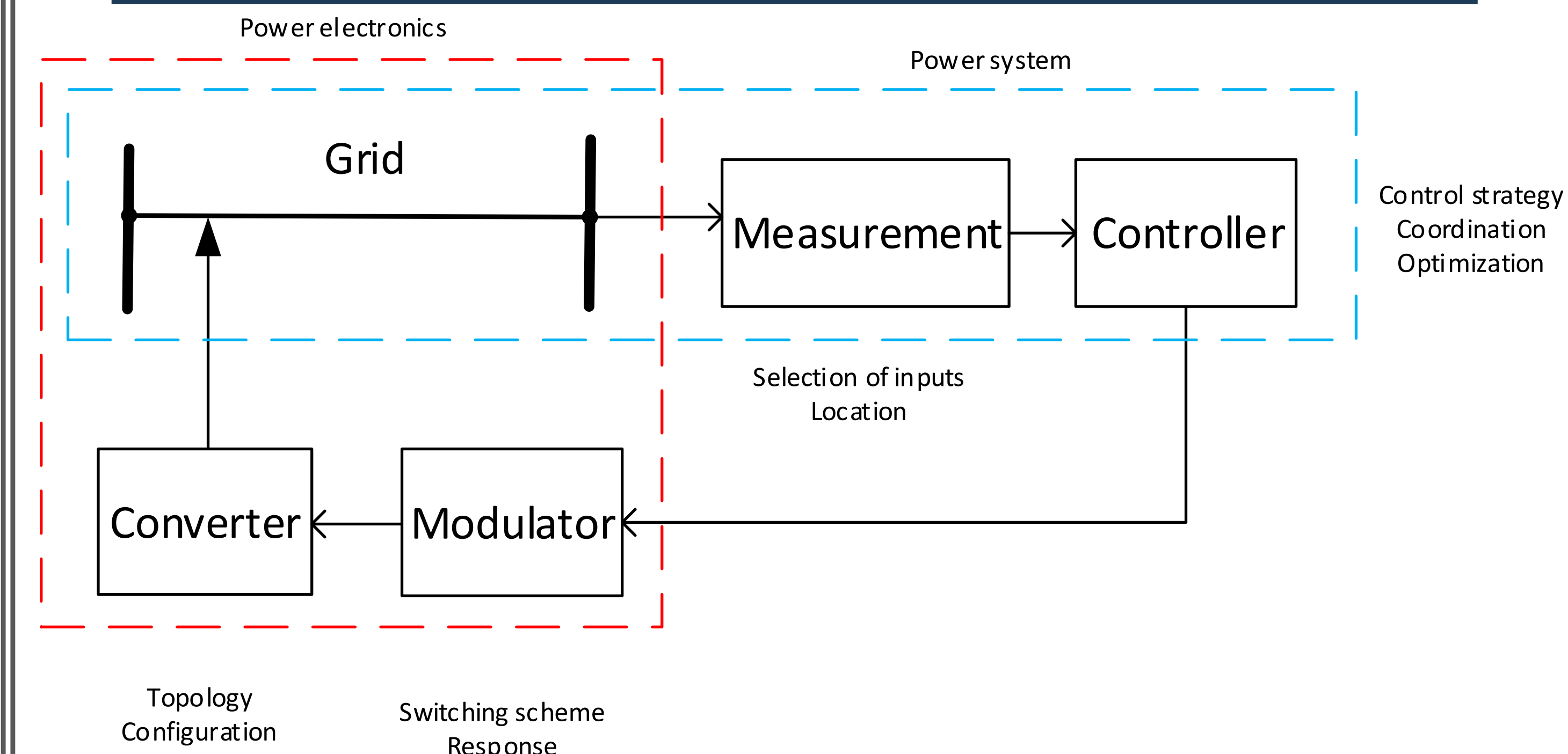


## FACTS devices family



Shunt devices	Series devices	Unified power flow controller
SVC STATCOM APF UPS D-STATCOM	TCSC SSSC DVR	UPFC IPFC UPQC

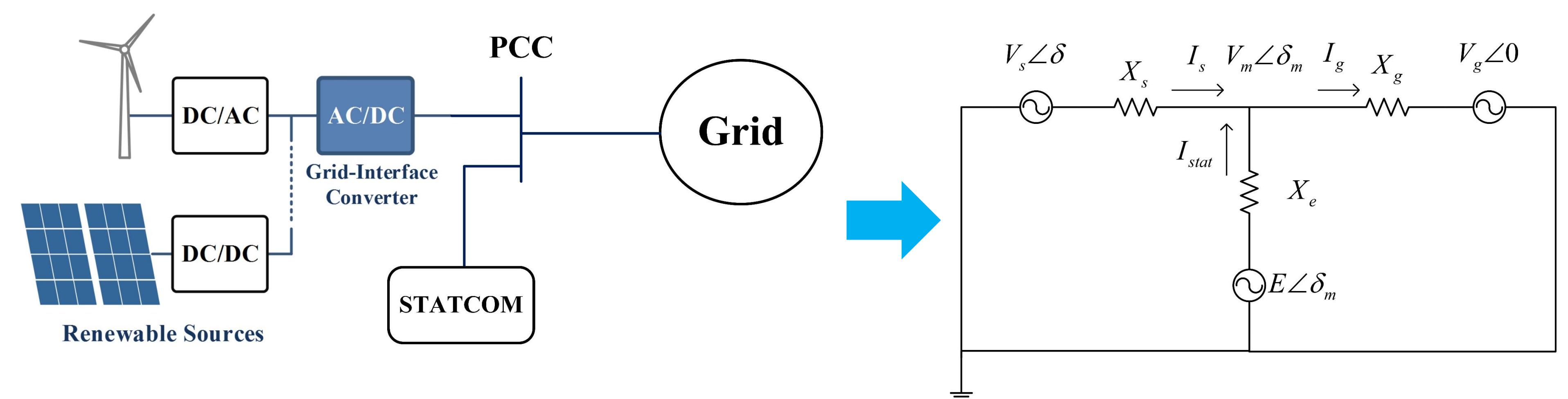
## Research interest



## Objective

Research on the impact under high penetration of renewable energy sources and methods to compensate with STATCOM.

## A simplified case as benchmark



Maintaining the DC bus voltage

Synchronous machine model:  
M: virtual inertia, D: virtual damping coefficient

